

ABSTRACT OF THE DISCLOSURE

A fuel injector can reduce the smoke emissions generated during low load and decrease NO_x during high load. The fuel injector comprises a first accumulator for accumulating a pressurized fuel, a second accumulator for accumulating a fuel having a higher pressure than the pressure of the fuel in the first accumulator, fuel injection valves to which the fuel from the first and second accumulators is supplied and thereby the fuel injection valves are opened, and the fuel is injected, fuel feeding pipes for feeding the fuel accumulated in the first and second accumulators to the fuel injection valves; a first valve mechanism which is provided at the fuel feeding pipe and which opens and allows the flow of the fuel in the first accumulator to the fuel injection valves, a second valve mechanism which is provided at the fuel feeding pipe and which opens and allows the flow of the fuel in the second accumulator to the fuel injection valves, and a control device for controlling the first and second valve mechanisms. The first accumulator and the first valve mechanism, and the second accumulator and the second valve mechanism, are provided in parallel to each other to the fuel feeding pipe. In a normal injection mode, the control device makes the first and second valve mechanisms open at the same time. In an injection rate control mode, the control device makes an open timing of the first valve mechanism earlier than an open timing in the normal injection mode.